



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001  
June 16, 2008

Ms. Lori Podolak  
Product Licensing Specialist  
QSA Global, Inc.  
40 North Avenue  
Burlington, MA 01803

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9027 FOR THE MODEL NO.  
741-OP PACKAGE

Dear Ms. Podolak:

Enclosed is Certificate of Compliance No. 9027, Revision No. 20, for the Model No. 741-OP package. This certificate supersedes, in its entirety, Certificate of Compliance No. 9027, Revision No. 19, dated June 6, 2008. The staff's Safety Evaluation Report is also enclosed.

Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471. The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or Jessica Glenny of my staff at (301) 492-3285.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Benner", is positioned above the typed name.

Eric Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No 71-9027  
TAC No. L24189

Enclosures: 1. Certificate of Compliance  
No. 9027, Rev. No. 20  
2. Safety Evaluation Report  
3. Registered Users

cc w/encls 1 & 2: R. Boyle, Department of Transportation  
J. Shuler, Department of Energy  
Registered Users

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9027	20	71-9027	USA/9027/B(U)-96	1 OF	3

2 PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3 THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

i. ISSUED TO (Name and Address)

QSA Global Inc  
40 North Avenue  
Burlington, MA 01803

ii. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

AEA Technology, QSA Inc., application dated  
July 19, 2001, as supplemented.

4 CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below

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(a) Packaging

(1) Model No.: 741-OP

(2) Description

The Model No. 741-OP consists of a gamma ray projector within a protective carbon steel container. The protective container is of welded steel construction and is approximately 32 inches long, 19 inches wide, and 18.5 inches high. Polyurethane foam and wood inserts locate the Model No. 741 series projectors in the center of the container and provide impact protection.

The 741 series projectors include the Model Nos. 741, 741E, 741A, 741AE, 741B, and 741BE. The primary components of the projector consist of an outer steel shell, internal bracing, polyurethane foam, depleted uranium shield, and an "S" tube. The radioactive contents are securely positioned in the "S" tube by a source cable locking device and shipping plug. A ¼-inch thick steel shipping plate is bolted over the source locking mechanism for additional protection during transport. Tamper-proof seals are provided on the outer steel container. The dimensions of the projector are approximately 19 1/8 inches long, 13 7/8 inches wide, and 11 3/8 inches in height. The maximum weight of the package is 510 pounds, and the maximum weight of the projector is 360 pounds.

(3) Drawings

The package is constructed in accordance with QSA Global Inc. Drawing Nos. R74190, Rev. G, Sheets 1-7; and R741-OP, Rev. G, Sheets 1-7.

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5.

(b) Contents

(1) Type and form of material

Cobalt-60 or Iridium-192 as sealed sources which meet the requirements of special form radioactive material

(2) Maximum quantity of material per package

33 curies of Cobalt-60, or  
240 curies of Iridium-192 (output).

Output curies are determined in accordance with American National Standards Institute N432-1980, "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography."

6. The source shall be secured in the shielded position of the packaging by the source assembly lock, lock cap and safety plug assembly. The source assembly lock, lock cap and safety plug must be fabricated of materials capable of resisting a 1475°F fire environment for one half hour and maintaining their positioning function. The locking ball of the source assembly must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
7. The nameplate shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
8. In addition to the requirements of Subpart G of 10 CFR Part 71:
- (a) The package shall be prepared for shipment and operated in accordance with the Operating Procedures in Section 7 of the application; and
  - (b) The package must meet the Acceptance Tests and Maintenance Program of Section 8.0 of the application.
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
10. Revision No. 18 of this certificate may be used until June 30, 2009.
11. Expiration date: August 31, 2011.

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REFERENCES

AEA Technology, QSA Inc., application dated August 31, 2005.

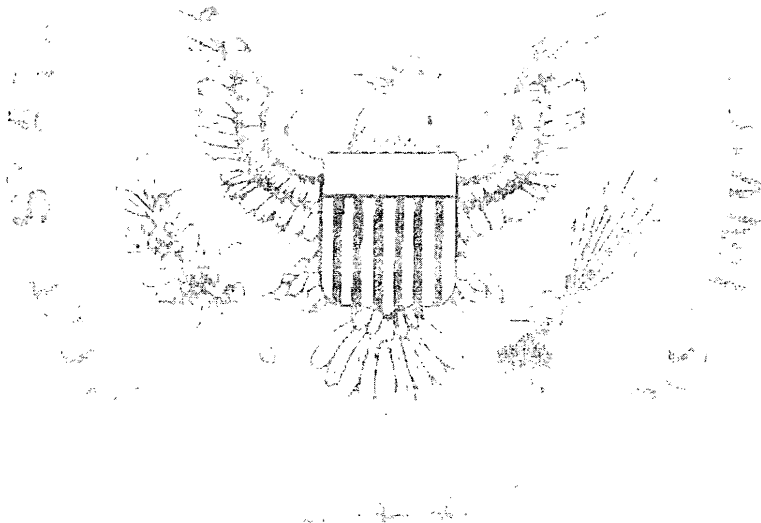
Supplements dated: October 25, 2005. February 20. July 17. August 11. and August 15, 2006; and  
February 14. and May 19, 2008.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Eric Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Date: June 16, 2008.





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NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT

Docket No 71-9027

Model No. 741-OP

Certificate of Compliance No 9027

Revision No. 20

Certificate of Compliance No 9027, Revision No 20, was revised to include wording and Drawing No R74190, Revision G, in Condition Nos 5.(a)(2) and 5.(a)(3), respectively, which was inadvertently omitted from the previous certificate revision. Certificate of Compliance No 9027, Revision No 20, supersedes in its entirety Certificate of Compliance No 9027, Revision No 19, dated June 6, 2008.

Issued with Certificate of Compliance No 9027, Revision No 20  
on June 16, 2008